

## 4

chi square = 0.02  
49.  
9.7

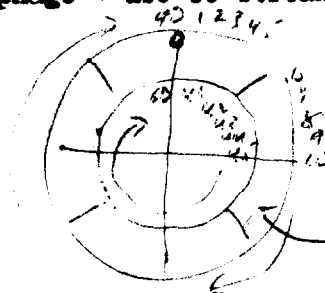
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All the above have been derived from more than 700 isolations. Incidentally - for the streak test for sm, succ, EMB (try home-made Endo for ~~st~~ mannitol, NG for arabinose), phage I use 60 streaks per plate - from a master isolation plate:

Everything works well - including retesting, retention of new combinations on master plate, book-keeping (if EMB plates are read early - otherwise - decolorize +).



5 streaks  
per sector  
x 12  
= 60 streaks

I can't use only sm selection and analysis for the amino acid markers à la Rothfels because of the succ marker - amino acids in the medium, even small amounts, louse up the results.

As for lineage of K 12 succ- - it may not mean much. Y24, Y161, 58-161, and 679-680 and derivatives are all succ+ (at least no succ- come up in intercrossores and serial reversions are succ+). Ryan's parent K 12 is succ-, from this I obtained a succ+ once and only once, produced a hist-phenylala- from it for crossing, and tested a lot of succ-auxotrophs. These latter fall into two categories - those that give only succ- on intercrossing and those that give succ+ as well (UGH!!). Ellen Kahn's 175-12 is succ- but throws off succ+ on crossing by a succ- that throws off succ+. I am trying to get some linkage data on these anomalous succ-'s but it's slow going and I don't have much time left.

succ- only

News from here:

- 1) lamda still being worked on - different plaque sizes, different sensitivities of sensitive cultures as a function of media etc. Peg Lieb is doing this and hopes to see Esther at the Minneapolis meetings.
- 2) multiplicity reactivation has been "reinterpreted" by Dulbecco - fine analysis shows that data does not follow log survivors vs dose curve - extrapolates too low at zero dose and has too shallow a slope at high dose
- 3) Benzer has shown T7 works OK for UV analysis of intracellular phage growth (repetition of Luria and Laterjet) but that T2 is anomalous as LL found.
- 4) Vogt has been watching K12 under the phase contrast - thousands of L granules form @ agglutinate or clump, if clumps are large enuf tetrads form and bacteria grow out of them and swim away. It is difficult to understand what she thinks but in general and with no claim to be

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*When you probably trying  
to beat up into print  
but I didn't want  
don't say I didn't say  
you but I did*

accurate - K12 cells produce granules which can multiply themselves and coalesce, if enuf do so bacteria can grow out of them, granules of a single bacterium do not recombine with themselves tho' they may fuse in clumps, meiosis is all wet, what happens is a random incorporation of factors in resultant regenerated bacteria. That was yesterday, today may be different. She wanders around chortling that this fixes Naglzenz' idea. Oh yes, agar is necessary as a substratum.

I may be in for the Minneapolis meetings. It looks as if I'll be working for an industrial company next year - my Public Health fellowship won't be decided until on or about Sept. 15th (supposed to have been ditto June 15th) and I'm due to leave here Sept. 30th. What do you know about Vanderbilt - supposedly some people just left there and they are looking for more.

Reprints of the kinetics article follow.

Sincerely,

*Tom Nelson*